
State Water Resources Control Board

STATE WATER RESOURCES CONTROL BOARD DIVISION OF WATER RIGHTS STAFF REPORT March 25, 2022

SUBJECT

WORKSHOP ON STATUS OF PHASE 1 OF THE SALTON SEA MANAGEMENT PROGRAM

Introduction

This staff report provides information to interested parties who may participate in the annual workshop on the status of the Salton Sea Management Program (SSMP) as part of the State Water Resources Control Board's (State Water Board) oversight role of the SSMP.

The staff report is organized into six sections.

Section 1: Purpose of Workshop provides a high-level summary of why the State Water Board is holding the workshop. **Section 2: SSMP Annual Report** provides an overview of CNRA's annual report. **Section 3: Water Right Transfer** provides a background and history on WRO 2017-0134. **Section 4: Salton Sea Watershed** provides a description and current environmental conditions of the Salton Sea. **Section 5: Staff Activities** provides information regarding State Water Board staff activities since last year's workshop. **Section 6: More Information** provides a link to the State Water Board's Salton Sea webpage.

Section 1: Purpose of Workshop

The purpose of the workshop is to hold an annual check-in so that state and local agencies, and the public, can review and comment on activities that the State of California, with California Natural Resources Agency (CNRA) as lead, has done over the previous year to address environmental issues at and surrounding the Sea. In addition to information presented by CNRA, the workshop is an opportunity to hear from various panels on their perspectives and involvement in the SSMP effort, and for the State Water Board to receive comments from the public.

The main focus of the workshop is an update from CNRA on the SSMP, based on their annual report. CNRA submitted their 2021 SSMP annual report on February 24, 2022, ahead of the annual end of March deadline set in WRO 2017-0134. CNRA released their report to the public on February 25 and made the report available in both English and Spanish. The report is accessible on the CNRA website at: <https://saltonsea.ca.gov>

The State Water Board's role in hosting the annual workshop came about as a result of recommendations made by the State's [Salton Sea Task Force](#), and through continued oversight of a [water right transfer order](#). Condition 28 of [Order WRO 2017-0134](#) requires the State Water Board to hold an annual workshop and receive an annual report from CNRA no later than March 31 of each year. This date effectively could result in a timely submittal of the annual report such that it occurs at the same time as the workshop. In 2020, the annual workshop was delayed until August due to the pandemic. In 2021 and again now in 2022, the workshop is being delayed until April to allow sufficient time for review of the CNRA report by the public and State Water Board staff ahead of the workshop. In 2021, the CNRA report was released on March 5, 2021 and the workshop was held on April 7, 2021. State Water Board staff also recognize that the CNRA annual report, while prepared in compliance with WRO 2017-0134, contains additional content beyond the requirements, including updates on management, planning, permitting, and construction activities intended to support the delivery of future milestones, as well as information on environmental conditions at the Sea.

Section 2. SSMP Annual Report

CNRA submitted their Annual Report on the Salton Sea Management Program to the State Water Board on February 24, 2022, ahead of the March 31 annual deadline set in WRO 2017-0134.

The 82-page report was prepared by CNRA, Department of Water Resources and California Department of Fish and Wildlife. The Executive Summary highlights project delivery, partnerships, community engagement and transparency, planning and actions moving forward. Section 1 provides the Introduction and Purpose, including notable highlights since preparation of the 2021 annual report, updates for the State Water Board Order WRO 2017-0134, Covid-19 impacts and responses, and report organization.

Section 2 provides information on the SSMP project delivery, including land access, and both SSMP and non-SSMP project updates. Section 3 focuses on partnerships, including with Audubon of California, United States Bureau of Land Management, California Air Resources Board, Coachella Valley Water District, Colorado River Basin Regional Water Quality Control Board, Imperial Irrigation District, Imperial County, Imperial County Air Pollution Control District, Natural Resources Conservation Service, Riverside County, Salton Sea Authority, South Coast Air Quality Management District, Torres Martinez Desert Cahuilla Indians, Government-to-government consultations

and partnerships with California Native American Tribes, U.S. Army Corps of Engineers, U.S. Bureau of Reclamation and the U.S. Fish and Wildlife Service.

Section 4 highlights community engagement, including information on the Community Engagement Committee, Committee charter, and public engagement schedule. Engagement activities have been focused on the Community Engagement Committee, Long-Range Plan meetings, National Environmental Policy Act (NEPA) Environmental Assessment (EA), Independent Review Panel meetings, Monitoring Implementation Plan meetings, and the Species Conservation Habitat (SCH) project. Section 5 provides information on planning activities, including a discussion of the NEPA EA, Long-Range Plan, organizational capacity of CNRA, funding status planning, and program management. Section 6 provides an overview of next steps, including key program activities for 2022, 2023, and 2024, a discussion of meeting the State Water Board WR 2017-0134 Order targets, and a SSMP project summary table. Section 7 of the report provides a list of references.

Appendix A provides information on the current conditions at the Salton Sea, including inflows, Salton Sea elevation and salinity, exposed lakebed area, bird and fish survey data. Appendix B provides a table summary of the funding status, including the agency providing funding, the authority, amount authorized for appropriation, amount already appropriated, amount available for additional commitments, and use.

Select Information from the CNRA Annual Report

Stakeholders interested in the status of Salton Sea Management Program are encouraged to review the CNRA report in its entirety. Regarding the reporting for WRO 2017-0134, parties may wish to specifically review CNRA Annual Report, Table 1 (pages 4 through 7) and Table 2 (pages 50 through 52).

CNRA Report Table 1 provides information on activities identified in State Water Board Order WRO 2017-0134. For reader ease of reference, a copy of this table is provided below with an added explanation of where to find additional information on the topic within the report.

Table 1: Activities identified in State Water Board Order WR 2017-0134 (SSMP Annual Report, page 4).

Item	Reporting Requirement	SSMP Activity
(i)	Completed projects and milestones achieved in the prior year.	The following are key accomplishments in 2021: Construction of the \$206.5M SCH project, spanning an area of approximately 4,100 acres, began in January 2021 and continued throughout the year. The project is expected to be completed by 2023. Important project components completed in 2021 include: construction of initial fill of berms and levees

	<p>south of the habitat ponds and east of East Habitat Pond; construction of initial fills for nesting islands at the East Habitat Pond; construction of interception ditches for collecting and diverting agricultural runoff away from the project site and providing connectivity between agricultural drains, allowing Desert Pupfish migration between drains (constituting 22 acres of aquatic habitat for a state and federally endangered species); and construction of the causeway leading to the Saline Pump Station to supply salt water to the project.</p> <p>Secured land access agreement with the Bureau of Reclamation (Reclamation) to facilitate delivery of up to 1,700 acres of enhanced vegetation projects at three sites on the western and eastern shores of the Sea. Construction was initiated in December 2021. Developed Phase I:10-Year Plan draft Project Description for the anticipated EA. The Corps released the draft project description Public Notice to announce the project and solicit public input into the NEPA and permitting process in March 2021.</p> <p>The SSMP Air Quality Monitoring Program was established beginning with the placement of monitors and instruments on the SCH site in January 2021 to monitor the performance of the temporary dust suppression projects. In December 2021, the program expanded to the north end of the Sea to the North Shore and Coachella Exposed Lakebed sites to collect data as described in the 2020 Dust Suppression Action Plan.</p> <p>In April 2021, the SSMP entered into a \$19.25M Proposition 68 funding agreement with the Salton Sea Authority, and in partnership with the County of Riverside, to plan and construct the approximately 160-acre North Lake Pilot Demonstration Project.</p> <p>Hired six new staff for the SSMP to enhance the capacity of the team to deliver on projects. A new interim local office was established in Imperial County, at the SCH project site in</p>
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		<p>Westmorland. Three new program staff are based in Imperial County.</p> <p><i>Additional information on SSMP projects can be found in the SSMP Project Delivery section of the report (chapter 2).</i></p>
(ii)	Amount of acreage of completed projects that provide dust suppression and habitat restoration, broken down by habitat type	<p><u>Vegetation Enhancement Projects:</u> Designs were developed for three project sites identified as Clubhouse, Tule Wash, and West Bombay Beach. Land access was secured from Reclamation for 1,700 acres and construction began in December 2021. Approximately 30 acres of dust suppression were completed through the end of January 2022.</p> <p><u>Species Conservation Habitat Project:</u> Construction of the SCH project (approximately 4,100 total acres) began in January 2021. Important project components were completed in 2021 and are summarized in the prior section. The State's contractor, Kiewit, completed interception ditches for agricultural drains creating approximately 22 acres of new Desert Pupfish habitat. Kiewit implemented interim dust control measures to stabilize approximately 500 acres of exposed lakebed within the SCH footprint in accordance with the Imperial County Air Pollution Control District guidelines and the approved construction Dust Control Plan. This is in addition to the 755 acres of temporary dust suppression completed in 2020.</p> <p><i>Additional information on acreage is provided in table 2 within the report, located on page 50 and shown in table 3 below.</i></p>
(iii)	Upcoming projects to be completed and milestones to be achieved prior to the next annual progress report	<ol style="list-style-type: none"> 1. Continue construction of the SCH project. 2. Continue construction of the vegetation enhancement projects at Clubhouse, West Bombay Beach, and Tule Wash. 3. Complete the Final EA for the Phase 1: 10-Year Plan. 4. Contingent upon securing land access agreements from different land-owning entities,

		<p>implement 1,500 acres of vegetation enhancement projects and initiate permitting and preliminary design for another ~6,800 acres. The projects include:</p> <ul style="list-style-type: none">• North Lake Project,• San Felipe Fan Restoration Project,• Wister Unit Marsh Bird Habitat Restoration Project,• New River Expansion Project,• Bombay Beach Restoration Project,• SCH vegetation Project. <p>5. Collaborate with Riverside County and SSA to complete design and permitting needed to initiate construction of the North Lake Pilot Demonstration Project.</p> <p>6. Pursue federal funding opportunities for SSMP projects qualifying for Farm Bill and other funding sources.</p> <p>7. Support advancement of other projects led by partner organizations as described in Chapter 2, including the Audubon Bombay Beach Restoration Project and the Desert Shores Channel Restoration Project.</p> <p><i>Additional information on upcoming projects can be found in the SSMP Project Delivery (chapter 2) and Next Steps (chapter 6) sections of the report.</i></p>
(iv)	Status of financial resources and permits that have not been secured for future projects	<p>New funding commitments were made by the State Legislature and the Newsom Administration of an additional \$220M in near-term General Funds for Salton Sea-related activities over three years, including \$40M appropriated this fiscal year (2021-22). The remainder will be appropriated in 2022-23 (\$100M) and 2023-24 (\$80M) through the annual budget act. The financial status of the SSMP is described in Chapter 5, with additional details in Appendix B.</p> <p>Upon completion of the Phase I: 10-Year Plan EA, funding needs beyond 2024 will be better defined and updated accordingly.</p> <p><i>Table 5 in Appendix B of the Annual Report further explains funding availability for the SSMP.</i></p>

(v)	Any anticipated departures from the dates and acreages identified in Condition 24 of the State Water Board Order	There have been departures from project delivery dates as discussed in the Annual Report. Based on CNRA's current understanding of the steps required to implement additional projects, Chapter 6 describes anticipated dates to achieve the acreage schedule. However, because the State is not a significant landowner around the perimeter of the Sea, the timely implementation of projects on the ground is contingent on expedited support from entities that do own or administer these lands.
(vi)	Progress toward development of the long-range plan described in condition 26 of the order	<p>The SSMP Team contracted with the University of California at Santa Cruz to convene an independent review panel to conduct a feasibility analysis for water importation. This panel will provide its recommendation by September 2022. The results of the independent panel will inform restoration options for the Long-Range Plan, currently under development by the SSMP Team. Public engagement to launch development of the plan began in August 2021 and will continue through 2022. In addition, a Long-Range Plan Committee has been formed to advise the State and had its first meeting in December 2021. The plan will be developed in collaboration with input from tribal governments, local governments, and other stakeholders including community members. The goal will be to develop a plan that protects or improves wildlife habitat, air quality, and water quality to prevent or reduce environmental and health consequences anticipated from long-term recession of the Salton Sea.</p> <p>The Long-Range Plan will be submitted to the State Water Board by the end of 2022.</p> <p><i>Development of the Long-Range Plan is discussed in more detail in the Planning section in the Annual Report, beginning on page 40 (chapter 5).</i></p>

(vii)	In the event an annual milestone shortfall exceeds 20 percent of a year's annual obligation, a plan that will cure the deficiency within 12 months	CNRA's goal is to complete all projects discussed below by 2024 to achieve the 2024 14,200 acreage target in WR 2017-0134. <i>CNRA's vision for project delivery is discussed in more detail throughout the Annual Report and is summarized in Chapter 6, Next Steps.</i>
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CNRA Table 2 on page 50 of the report provides a summary of SSMP projects with acreages. A partial copy of the table is provided below. The project status column was omitted but can be viewed by accessing the CNRA report at: <https://saltonsea.ca.gov/>

CNRA Report Table 2 SSMP Project Summary Table (Project status column omitted)

Year End Goal	WR 2017-0134 Target Acres	Cumulative WR-2017-0134 Target Acres	Completed and Planned Land Access Acres	Cumulative Land Access Acres	SSMP Completed Acres	SSMP Cumulative Completed Acres (Mid-Range)
2018	500	500				
2019	1,300	1,800	4,100	4,100		
2020	1,700	3,500	4,100	4,100	755	755
2021	3,500	7,000	1,700	5,800	522	1,277
2022	1,750	8,750	4,000-5,000	10,300	1,500	~2,800
2023	2,750	11,500	4,000-5,000	14,800	5,300-6,300	7,500
2024	2,700	14,200	2,000-3,000	17,300	6,900	~14,200
2025	3,400	17,600	[1]			
2026	4,000	21,600	[1]			
2027	4,000	25,600	[1]			
2028	4,200	29,800	[1]			

[1] A comprehensive project pipeline and schedule will be developed following the completion of the 10-Year Plan NEPA Environmental Assessment process in 2022.

Section 3. Water Right Transfer

On October 28, 2002, the State Water Board issued [Water Rights Order \(WRO\) 2002-0013](#) which approved the long-term transfer of water from the Imperial Irrigation District (IID) to the San Diego County Water Authority, the Coachella Valley Water District, and the Metropolitan Water District of Southern California. On December 20, 2002, the State Water Board issued [Order WRO 2002-0016](#), which [revised Order WRO 2002-0013](#).

On November 18, 2014, IID filed a Petition for Change seeking modification of Revised Order WRO 2002-0013. In May 2015, Governor Edmund G. Brown, Jr. established the Salton Sea Task Force to identify realistic short- and medium-term goals to respond to potential air quality and ecological impacts resulting from reduced flows of fresh water to the Salton Sea. As a part of the Salton Sea Task Force, the State Water Board regularly monitored and assessed progress on the implementation of the SSMP and held workshops on March 18, 2015, January 5, 2016, April 19, 2016, November 15, 2016, and September 7, 2017. On November 7, 2017, the State Water Board adopted [Order WRO 2017-0134](#) amending revised Order WRO 2002-0013 to incorporate additional conditions that set forth specific restoration milestones (see Table 1) to address public health and environmental concerns within [Phase 1 of the SSMP](#).

WRO 2017-0134 requires that the State Water Board hold a public meeting during each year of Phase 1 of the SSMP to receive oral and written comment on the status of Salton Sea restoration. The order also requires an annual report from the California Natural Resources Agency (CNRA), to identify:

- i. completed projects and milestones achieved in the prior year;
- ii. amount of acreage of completed projects that provide dust suppression and habitat restoration, broken down by habitat type;
- iii. upcoming projects to be completed and milestones to be achieved prior to the next annual progress report;
- iv. the status of financial resources and permits that have not been secured for future projects;
- v. any anticipated departures from the dates and acreages identified in condition 24 of the order (see table 1);
- vi. progress toward development of the long-range plan described in condition 26 of the order, and;
- vii. in the event an annual milestone shortfall exceeds 20 percent of a year's annual obligation, a plan that will cure the deficiency within 12 months.

WRO 2017-0134 contains implementation acreage milestones and cumulative amounts for 2018 through 2028, including a requirement that no less than 50 percent of the annual milestones shall provide habitat benefits for fish and wildlife that depend on the Salton Sea ecosystem. The CNRA Table 2 column 1 (WR 2017-0134 Target Acres) states the annual milestones of total acreage of habitat and dust-suppression projects that are to be completed each year. CNRA Table 2 column 2 (Cumulative WR-2017-0134 Target Acres) provides cumulative acreage to be completed by the end of each year.

Section 4: Salton Sea Watershed

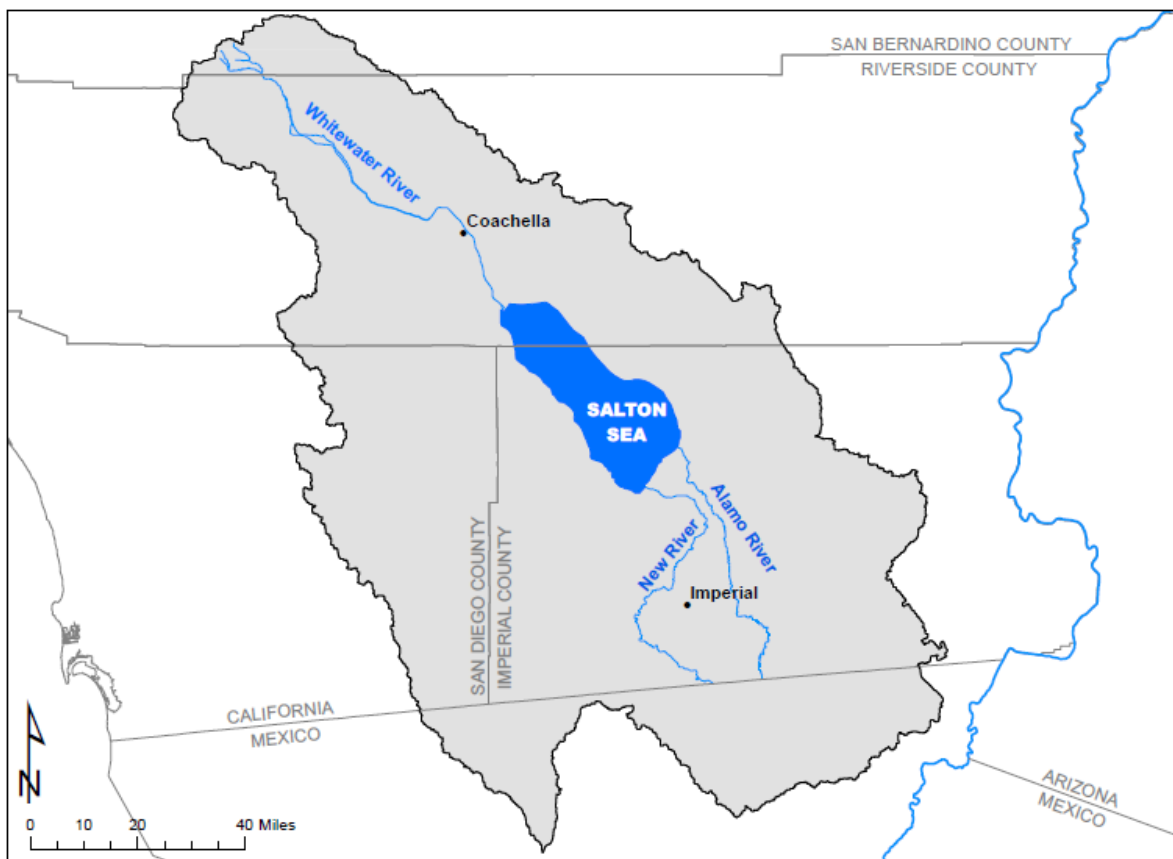
Description of the Salton Sea

Located in the Salton Basin (part of the Colorado River delta), the Salton Sea is California's largest lake, with a surface elevation of approximately 228 feet below sea level. The Salton Sea watershed encompasses an area of approximately 8,000 square miles from San Bernardino County to the Mexicali Valley. The Salton Sea lies

at the lowest point in the Salton Basin and collects runoff and agricultural drainage from most of Imperial County, a portion of Riverside County, smaller portions of San Bernardino and San Diego Counties, as well as the northern portion of the Mexicali Valley (see Figure 1).

Over the last several hundred thousand years, the Colorado River has periodically meandered west to fill the Salton Basin, creating ancestral freshwater lakes that ultimately evaporated after the river meandered back towards the east. The Salton Sea was formed in 1905 when massive flooding caused the Colorado River to break through an irrigation canal to flow uncontrolled directly into the Salton Basin for 18 months. Once the breach in the irrigation canal was fixed, the Salton Sea has been primarily sustained by agricultural drain water, approximately 80 percent of which flows from the Imperial Valley. As the Salton Sea has no outlets, salts concentrate in it and nutrients enhance the formation of eutrophic conditions. Currently, the Salton Sea has a salinity level that is approximately 50 percent higher than the ocean. The Salton Sea is a critical stop on the Pacific Flyway for migrating birds, including several threatened and endangered species.

Figure 1: Map of the Salton Sea Watershed



Environmental Conditions of the Salton Sea

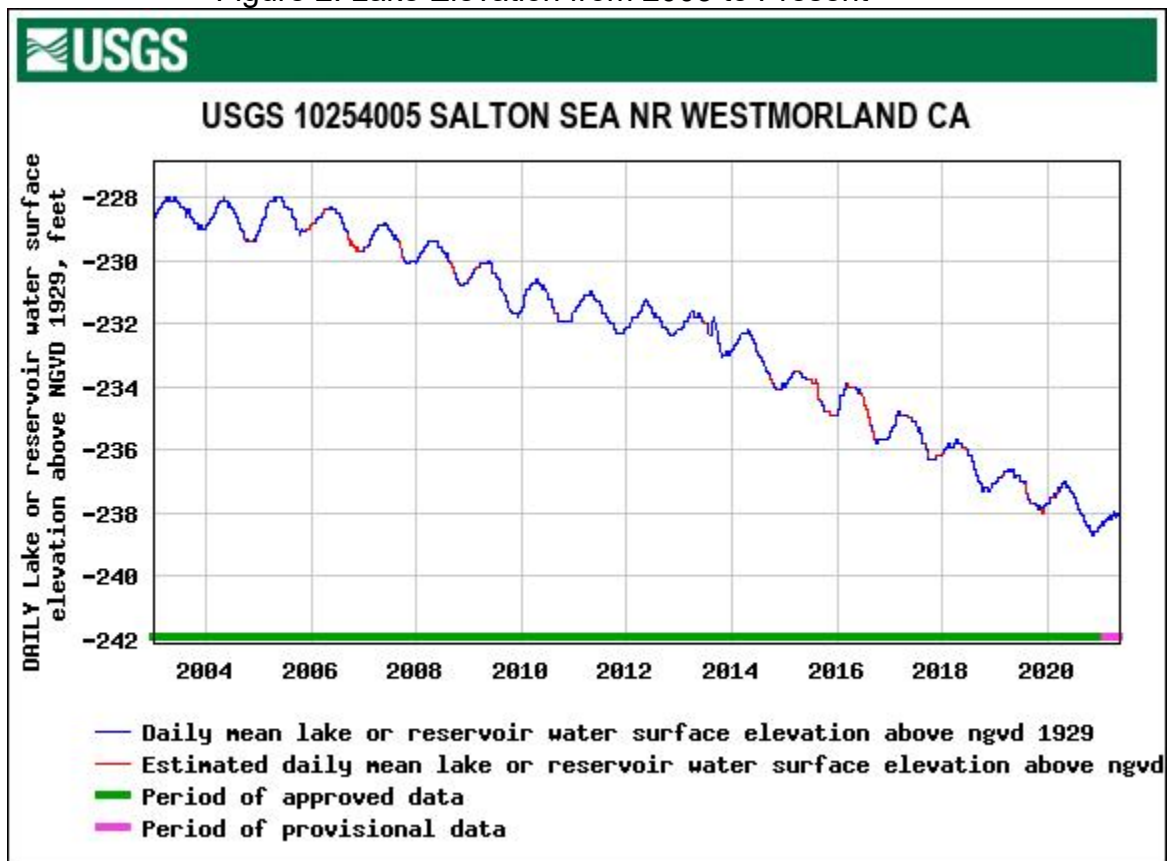
The environmental conditions are changing rapidly within the Salton Sea watershed caused by water transfers under the [Quantification Settlement Agreement](#) and water management planning within Coachella, Imperial, and Mexicali Valleys. There will be a reduction of inflows to the Salton Sea as time progresses, and it will result in declining surface water elevations and increased salinity at the Salton Sea.

For a more detailed discussion of conditions at the Salton Sea, readers are referred to CNRA Annual Report Appendix A. Appendix A provides information on the current conditions at the Salton Sea, including inflows, Salton Sea elevation and salinity, exposed lakebed area, bird survey data and fish survey date.

As of March 8, 2022, the [Pacific Institute](#) provides that the current elevation of the Sea is -238.84 feet, National Geodetic Vertical Datum (NGVD) 1929). This is a drop of 9.9 feet, from to the 2003 baseline elevation of -228.9 feet, NGVD 1929. The reduction of Salton Sea area is currently 26,000 acres (41 sq. miles).

Since 2003, there has been a steady decline in the surface water elevation of the Salton Sea which continued to decline during 2020 (see Figure 2).

Figure 2: Lake Elevation from 2003 to Present



Data available from: https://waterdata.usgs.gov/ca/nwis/uv?site_no=10254005

Section 5. Staff Activities

The State Water Board has a designated staff lead for engagement on the SSMP. Staff activities include planning of annual State Board workshop, and engaging on SSMP related activities. During 2021, the State Water Board held a virtual public workshop regarding the Salton Sea as required by WRO 2017-0134 on April 7, 2021. Written and oral comments were provided by several state and local entities, interested parties, and members of the public.

During 2021, State Water Board Staff attended meetings with local community members hosted by community-based organizations on June 15, and August 10, 2021, SSMP Community Engagement Committee meetings on June 29th, August 31, and September 9, 2021, and Long-Range Planning Committee meetings on December 14, December 21, 2021. Staff also attended the in-person tour of the Species Conservation Habitat Project at the Salton Sea on December 10, 2021. Additionally, staff virtually attended Salton Sea Authority (SSA) Board of Directors meetings on April 22, June 24, 2021.

Section 6: More Information

The State Water Board maintains a website on its engagement on the Salton Sea Management Program:

https://www.waterboards.ca.gov/waterrights/water_issues/programs/salton_sea/